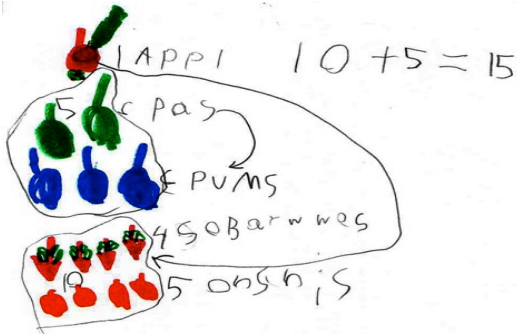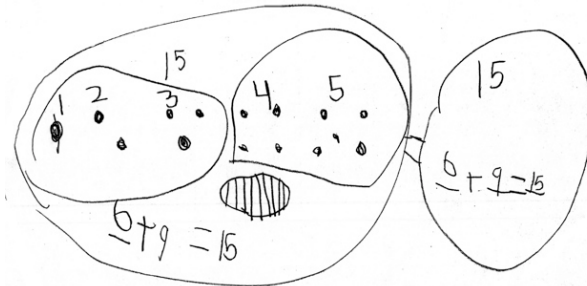## Ms. Bouchard's Class Discussion
of Solution Paths for the Caterpillar Task

Cole

Evan

Segment #1

We enter the whole group discussion after Cole shares his solution path with the class.

1	Ms. B:	How did you solve for the total number of pieces of fruit?
2	Cole:	I counted the 4, 5 and 1 because that makes 10. Then I added five more
3	Ms. B:	How many students understood what Cole did? *(Five students raise their hands.)*
4		Rosa, can you say back what Cole did in your own words?
5	Rosa:	He knows that 4 + 5 and 1 makes 10 and he likes to make ten, because it is easier
6		and then Cole adds five more.
7	Ms. B:	Can anyone else say back what you heard?
8	Earth:	10 + 5 is 15 pieces of fruit.
9	Sengi:	When you make ten you don't even have to count five more because it just goes
10		on the end.
11	Ms. B:	What does Sammy mean when he said, "It [the ones] just go on the end?."
12	Julia:	Like 10 + 5 = 15, 10 + 4 = 14 and 10 + 2 is 12. The ten is always there and then
13		you add the ones on.
14	Ms. B:	*(The teacher records 10+5, 10+4, 10+3, and 10+2.)* So the equations show us
15		that with total amounts such as 15, 14, 13, or 12. We see that we have one ten,
16		in the ten's place, and then some extra ones, in the one's place. *(The teacher underlines the tens and circles the ones.)*

The same pattern of talk is used to discuss Evan's solution path of 6 + 9.

Segment #2

Next we share the discussion of the comparison between 10 + 5 (Cole) and 6 + 9 (Evan).

17	Ms. B:	Thank you for sharing your way Cole and Evan. Cole wrote $10 + 5$ and he got 15
18		pieces of fruit. Evan said he solved $6 + 9$ and he got 15 pieces of fruit too. How
19		can both Cole and Evan each get 15 pieces of fruit when they each wrote and
20		solved a different equation? (*Ms. B writes $10 + 6 = 15$ and $6 + 9 = 15$ on board.*)
21	Evan:	I did it like Cole.
22	Irene:	I know, $10 + 5 = 15$.
23	Ms. B:	How did you know the sum was 15?
24	Irene:	I did 10 and then went 11, 12, 13, 14, 15. (*Uses fingers to keep track of counting.*)
25	Ms. B:	You counted on 5 more from 10 and got 15. $10 + 5 = 15$ pieces of fruit. Who can
26		use what you know about $10 + 5$ to think about the sum of $6 + 9$?
27	Marcus:	Can I show you? (*Marcus proceeds to the display of counters*) You take one off
28		of 10 and it is 9. Then you put the extra one with the 5 so now it is 6. So instead
29		of $10 + 5$ now he wrote $6 + 9$. They both equal 15.
30	Ms. B:	Who agrees with and understands what Marcus just said?
31	Maya:	He just moved them around but he didn't get any more.
32	Ms. B:	Can someone else add on?
33	George:	Marcus starts at 9 and counts 6. If you start at 10 you have to only count 5
34		because the other one is in the ten.
35	Ms. B:	You can add either $10 + 5$ or $6 + 9$. Cole counted 10 so he only had to add on five
36		more. Evan counted 9 so he had to add on 6. Can we write $10 + 5 = 6 + 9$?
37		Why or why not? Turn and talk with your partner.
38	Juan:	Both are 15 so they are equal.
39	Ms. B:	Who agrees or disagrees with Juan?

Source: Huinker, D., & Bill, V. (2017). *Taking Action: Implementing Effective Mathematics Teaching Practices in Grades K-5*. Reston, VA: National Council of Teachers of Mathematics.